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Atlona 10 Input Scaler and Switcher with a Single HDMI Output

AT-LINE-PRO4-GEN2

User Manual

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Introduction

The Atlona 10-input Scaler and Switcher with a single HDMI Output allows four HDMI or DVI (using a HDMI to DVI connector i.e. AT14048), three VGA, one component, one S-Video and one composite video input to be scaled to a single HDMI output. The AT-LINE-PRO4 also gives you the flexibility to add PAL or NTSC that may not be native to your display. The on screen display gives you the ability to change audio, scaling, and resolution options. With additional functions such as RS-232 and IR control the AT-LINE-PRO4 is easier than ever to control or integrate with a preexisting system.

Package Contents

- AT-LINE-PRO4
- 5V/2.6A DC power adaptor
- IR Remote Control
- Rack Ears
- User manual

Features

- Scaling any incoming Signal whether VGA, Composite, DVI or any other to the native resolution of the display: VGA(640x480)~WUXGA(1920x1200) or 480p~1080p
- Analog to digital AV conversion
- PAL to NTSC and NTSC to PAL conversion 50/60Hz
- Digital and analog audio capabilities with HDMI out
- RS-232 commands available for control systems
- 3.5mm Stereo Audio out for connecting your audio to an amp (i.e. AT-PA100)
- Learnable IR codes for universal remote controls
- Standard 1U size for easy rack mounting
- 3.5mm Audio jacks for audio embedding on HDMI inputs (Useful for DVI sources when used with HDMI/DVI adapters)
- Full 3D support on HMDI pass through
- Horizontal and vertical shift, color, tint, brightness, contrast, detail, sizing, and top and bottom vertical blanking adjustments
- VGA Inputs Supports following Resolutions: VGA(640x480) ~WUXGA(1920x1200) or 480p~1080p
- HDMI inputs support following resolutions: 480i~1080p and VGA~WUXGA
- Supports deep color of 8 / 10 / 12 bits per color (x3)
- On-Screen-Display allows users to fully adjust inputs/outputs preferences
- 3-D motion adaptive & 3-D video noise reduction
- HDCP compliant

Specifications

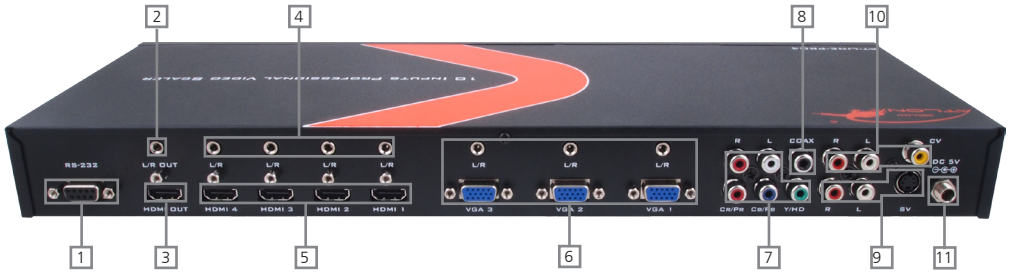
TMDS Clock Frequency	225Mbps
Input Ports	4 x HDMI 7 x 3.5mm stereo audio 3 x VGA 1 x S-Video 1 x Component Video 1 x Composite Video
Output Ports	1 x HDMI 1 x 3.5mm stereo audio port
Resolution outputs	Video: up to 1080p @ 60Hz Vesa: up to 1920x1200
Dimensions (WxDxH)	17.16x6.57x1.92 (inch) or 436x67x49 (mm)
Weight	4.6lbs or 2.1kg
Temperature	Operating: 32°F to 104°F or 0°C to 40°C Storage: -4°F to 140°F or -20°C to 60°C
Power consumption	8.5W

Panel Description

Front Panel

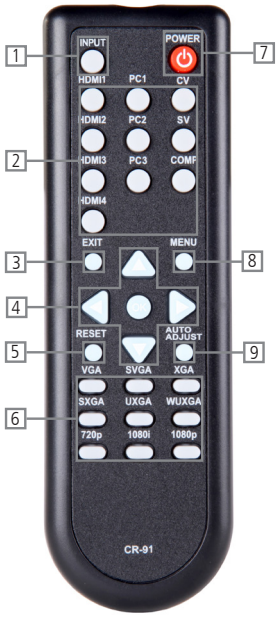
1. POWER BUTTON: Press this button to turn on or set the device to standby mode. The LED will illuminate red when the power is on.
2. IR RECEIVER: This IR window receives IR signal from the remote control included in the package.
3. CV: Press this button to select the composite video input source and the LED will illuminate red.
4. SV: Press this button to select the s-video input source and the LED will illuminate in red
5. COMP: Press this button to select the component video input source and the LED will illuminate red.
6. VGA 1 through 3: Press VGA1, VGA2, or VGA3 to select input 1, 2, or 3. The LED will illuminate red.
7. HDMI 1 through 4: Press the HDMI number to choose input 1, 2, 3 or 4. The LED will illuminate red.
8. MENU: Press this button to bring up the On Screen Display.
9. -/+: Press -/+ buttons to make a selection.
10. ENTER: Press this button to confirm the selection.

Back Panel



1. RS-232: Connect to a 3rd party control system or a computer with this port.
2. 3.5mm Stereo audio out - send stereo audio through to an amp (i.e. AT-PA100)
3. HDMI Out - Connect to a display with HDMI or an HDMI to DVI connector (such as AT14048 which has a compatible locking connector to secure the connection).
4. 3.5mm Stereo In - Audio in port used for audio when using an HDMI to DVI adapted source.
5. HDMI In - Connect the HDMI sources here or DVI sources with an HDMI to DVI adapter (i.e. AT-14048)
6. VGA In & Stereo In: These slots are for input sources such as Laptops, Desktop Computers, Document Cameras or any other VGA source. Each VGA input is accompanied with a 3.5mm stereo audio input.
7. Y/PB/PR & L/R In: This port is to connect an input source such as a DVD player, a Cables Box or an HD Camera. The input is accompanied with a L/R RCA audio input.
8. COAX: This port is to embed digital audio signal from any source.
9. SV & L/R: These ports are to connect an S-Video source.
10. CV & Stereo In: These ports are to connect to input sources such as VCRs or Security Cameras.
11. DC 5V: This port is to connect to the supplied power supply.

Remote Control



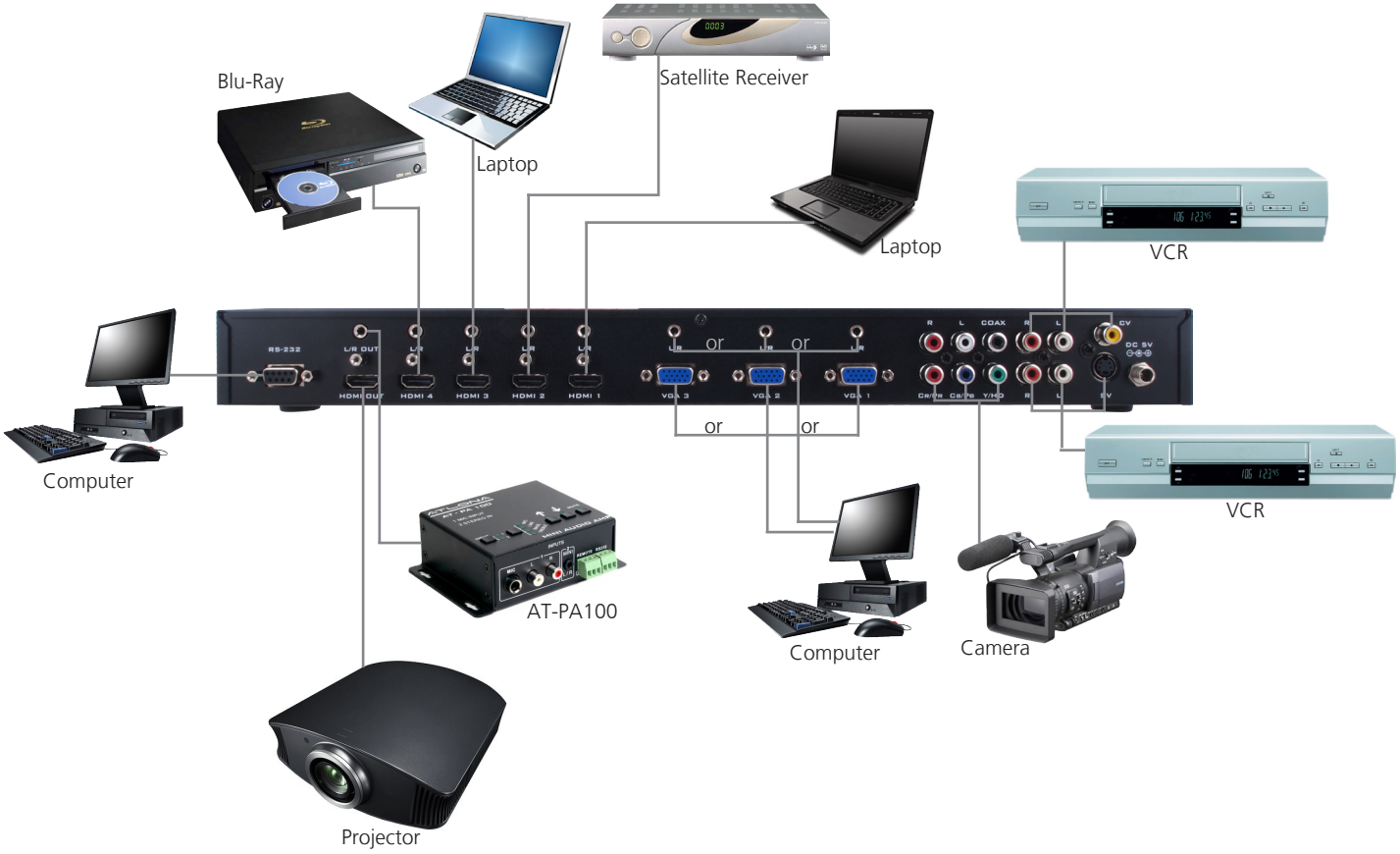
1. Input Button: Press this before choosing the source to switch to.
2. Source Selection: Press to switch between sources.
3. Exit: Press to exit from a sub menu or main menu.
4. On Screen Display operation. Press / to increase/ decrease the setting value of a selected parameter. OK (Enter): Press to confirm your selection.
5. Reset: Press the button to reset the unit's firmware setting to the factory default.
6. Output Resolution: Press to directly select output resolution. For other out put resolutions that are not available on the remote please enter On Screen Display Menu to select them.
7. POWER ON/OFF: Press these buttons to power on the device or to set it to standby mode.
8. MENU: Press to bring up On Screen Display.
9. Auto Adjust: Press to optimize the position of the picture on the screen.

On Screen Display Menu

1st Tier Option	2nd Tier Option		Adjustment	
Video	PICTURE MODE		USER / STANDARD / VIVID / MOVIE	
	CONTRAST		0 ~ 100 of Contrast Level	
	BRIGHTNESS		0 ~ 100 of Brightness Level	
	HUE		0 ~ 100 of Hue Level	
	SATURATION		0 ~ 100 of Saturation Level	
	SHARPNESS		0 ~ 100 of Sharpness Level	
	SCALE		OVERSCAN / UNDERSCAN / LETTERBOX/ PANSCAN / FULL	
	NR		LOW / MIDDLE / HIGH / OFF	
	EXIT		Back to the 1st Tier	
COLOR	COLOR TONE		USER / NORMAL / WARM / COOL	
	RED		0 ~ 100 of Red Color Level	
	GREEN		0 ~ 100 of Green Color Level	
	BLUE		0 ~ 100 of Blue Color Level	
	EXIT		Back to the 1st Tier	
OUTPUT	VGA (640x480)	480i	576i	WXGA (1280x800)
	SVGA (800x600)	480p	576p	WSXGA (1680x1050
	XGA (1024x768)	720p@60Hz	720p@50Hz	WUXGA (1920x1200)
	UXGA (1600x1200)	1080i@60Hz	1080i@50Hz	WUXGA+ (1440x900)
	SXGA+ (1400x1050)	1080p@60Hz	1080p@50Hz	1080p@30Hz
OSD	HPOSITION		0 ~ 100 of OSD Horizontal Position	
	VPOSITION		0 ~ 100 of OSD Vertical Position	
	TIMER		0 ~ 100 of OSD Show Time (sec.)	
	BACKGROUND (transparency)		0 ~ 100 of OSD Transparency Level	
	COLOR BAR		Display COLOR BAR or BLACK SCREEN when source is not transmitting signal	
	EXIT		Back to the 1st Tier	
AUDIO	SOURCE		HDMI / L/R / COAXIAL	
	DELAY		OFF / 40MS / 110MS / 150 MS	
	SOUND		ON / MUTE	
	EXIT		Back to the 1st Tier	
INFORMATION			SOURCE (Input interface)	
			INPUT (Input Resolution)	
			OUTPUT (Output Resolution)	
			VERSION (Firmware Version)	
EXIT	-		Close the OSD Menu	

Note: If there is no signal coming from the source selected then either a color bar or black screen will display. Switch between the color bar and black screen by selecting yes or no on colorbar in the OSD option of the On Screen Display Menu.

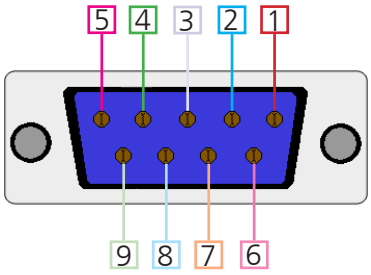
Connection and Installation



RS-232

Connection

RS-232 is connected through a 9-pin female D connector. The pins will have functions associated with them, some will be unassigned.



No.	Pin	Function
1	----	Not used
2	Tx	Transmit
3	Rx	Receive
4	----	Not used
5	Gnd	Ground
6	----	Not used
7	----	Not used
8	----	Not used
9	----	Not used

Baud Rate: 19200bps Data Bit: 8bits Parity: None Stop Bit: 1bit

Command

The command codes are very sensitive, do not change capitalization, spacing, or lettering.

Note: Each command or feedback is terminated with a carriage return.
Note: If the command fails or is incorrect the feedback should be "Command FAILED"

Set Commands

Command	Feedback	Description
S POWER 0	>POWER OFF	Power on
S POWER 1	>POWER ON	Power off
S SOURCE 0	>SOURCE CV	Set the input to CV
S SOURCE 1	> SOURCE SV	Set the input to SV
S SOURCE 2	> SOURCE COMP	Set the input to COMP
S SOURCE 3	> SOURCE PC1	Set the input to PC1
S SOURCE 4	> SOURCE PC2	Set the input to PC2
S SOURCE 5	> SOURCE PC3	Set the input to PC3
S SOURCE 6	> SOURCE HDMI1	Set the input to HDMI1
S SOURCE 7	> SOURCE HDMI2	Set the input to HDMI2
S SOURCE 8	> SOURCE HDMI3	Set the input to HDMI3
S SOURCE 9	> SOURCE HDMI4	Set the input to HDMI4
S OUTPUT 0	> OUTPUT NATIVE	Set the output EDID to native
S OUTPUT 1	> OUTPUT VGA	Set the output EDID to VGA(640X480@60)
S OUTPUT 2	> OUTPUT SVGA	Set the output EDID to SVGA(800X600@60)
S OUTPUT 3	> OUTPUT XGA	Set the output EDID to XGA(1024X768@60)
S OUTPUT 4	> OUTPUT SXGA	Set the output EDID to SXGA(1280X1024@60)
S OUTPUT 5	> OUTPUT UXGA	Set the output EDID to UXGA(1600X1200@60)
S OUTPUT 6	> OUTPUT 480i	Set the output EDID to 480i
S OUTPUT 7	> OUTPUT 480p	Set the output EDID to 480p
S OUTPUT 8	> OUTPUT 720p	Set the output EDID to 720p@60
S OUTPUT 9	> OUTPUT 1080i	Set the output EDID to 1080i@60
S OUTPUT 10	> OUTPUT 1080p	Set the output EDID to 1080p@60
S OUTPUT 11	> OUTPUT 576i	Set the output EDID to 576i@60
S OUTPUT 12	> OUTPUT 576p	Set the output EDID to 576p@60
S OUTPUT 13	> OUTPUT 720p	Set the output EDID to 720p@50
S OUTPUT 14	> OUTPUT 1080i50	Set the output EDID to 1080i@50
S OUTPUT 15	> OUTPUT 1080p50	Set the output EDID to 1080p@50
S OUTPUT 16	> OUTPUT WXGA	Set the output EDID to WXGA (1280x800@60)
S OUTPUT 17	> OUTPUT WSXGA	Set the output EDID to WSXGA (1680x1050@60)
S OUTPUT 18	> OUTPUT WUXGA	Set the output EDID to WUXGA (1920X1200@60)

Command	Feedback	Description
S OUTPUT 19	> OUTPUT WXGA+	Set the output EDID to WXGA+(1440X900@60)
S OUTPUT 20	> OUTPUT SXGA+	Set the output EDID to SXGA+ (1400X1050@60)
S SIZE 0	> SIZE FULL	Scale to Full Screen output
S SIZE 1	> SIZE OVERSCAN	Scale to Overscan Screen output
S SIZE 2	> SIZE UNDERSCAN	Scale to Underscan Screen output
S SIZE 3	> SIZE LETTERBOX	Scale to Letterbox Screen output
S SIZE 4	> SIZE PANSCAN	Scale to Panscan Screen output
S PICTUREMODE 0	> PICTUREMODE STANDARD	Set picture mode to STANDARD
S PICTUREMODE 1	> PICTUREMODE MOVIE	Set picture mode to MOVIE
S PICTUREMODE 2	> PICTUREMODE VIVID	Set picture mode to VIVID
S PICTUREMODE 3	> PICTUREMODE USER	Set picture mode to USER
S CONTRAST 0~100	> CONTRAST 0~100	Adjust Contrast between 0 and 100
S BRIGHTNESS 0~100	> BRIGHTNESS 0~100	Adjust Brightness between 0 and 100
S HUE 0~100	> HUE 0~100	Adjust Hue between 0 and 100
S SATURATION 0~100	> SATURATION 0~100	Adjust Saturation between 0 and 100
S SHARPNESS 0~100	> SHARPNESS 0~100	Adjust Sharpness between 0 and 100
S NR 0	>NR OFF	Set NR Mode to OFF
S NR 1	>NR LOW	Set NR Mode to LOW
S NR 2	>NR MIDDLE	Set NR Mode to MIDDLE
S NR 3	>NR HIGH	Set NR Mode to HIGH
S PCPHASE 0~63	> PCPHASE 0~63	Adjust the PC Phase between 0 and 63
S PCCLOCK 0~100	> PCCLOCK 0~100	Adjust the PC Clock between 0 and 100
S PCHPOSITION 0~100	> PCHPOSITION 0~100	Adjust the Horizontal Position between 0 and 100
S PCVPOSITION 0~100	> PCVPOSITION 0~100	Adjust the Vertical Position between 0 and 100
S COLORTEMP 0	>COLORTEMP NORMAL	Set Color Temperature to NORMAL
S COLORTEMP 1	>COLORTEMP WARM	Set Color Temperature to WARM
S COLORTEMP 2	>COLORTEMP COOL	Set Color Temperature to COOL
S COLORTEMP 3	>COLORTEMP USER	Set Color Temperature to USER
S RED 0~100	> RED 0~100	Adjust the RED hue between 0 and 100
S GREEN 0~100	> GREEN 0~100	Adjust the GREEN hue between 0 and 100
S BLUE 0~100	> BLUE 0~100	Adjust the BLUE hue between 0 and 100
S OSDHPOSITION 0~100	> OSDHPOSITION 0~100	Adjust the OSD Horizontal Position between 0 and 100
S OSDVPOSITION 0~100	> OSDVPOSITION 0~100	Adjust the OSD Vertical Position between 0 and 100
S OSDTIMEOUT 0~100	> OSDTIMEOUT 0~100	Adjust the OSD Timeout between 0 and 100
S OSDBACKGROUND 0~8	> OSDBACKGROUND 0~8	Adjust the OSD Background between 0 and 8
S AUDIOMUTE 0	> AUDIOMUTE OFF	Activate the Audio
S AUDIOMUTE 1	> AUDIOMUTE ON	Mute the Audio

Command	Feedback	Description
S AUDIODELAY 0	> AUDIODELAY OFF	Turn Audio Delay off
S AUDIODELAY 1	> AUDIODELAY 40ms	Set Audio Delay to 40mSec
S AUDIODELAY 2	> AUDIODELAY 110ms	Set Audio Delay to110mSec
S AUDIODELAY 3	> AUDIODELAY 150ms	Set Audio Delay to 150mSec

Status Commands

Command	Feedback	Description
R POWER	>POWER OFF~ON	Displays POWER status
R SOURCE	>SOURCE CV~HDMI4	Displays SOURCE status
R OUTPUT	>OUTPUT NATIVE~SXGA+	Displays OUTPUT status
R SIZE	>SIZE FULL~PANSCAN	Displays SIZE status
R PICTUREMODE	> PICTUREMODE STANDARD~USER	Displays PICTUREMODE status
R CONTRAST	> CONTRAST 0~100	Displays CONTRAST value
R BRIGHTNESS	> BRIGHTNESS 0~100	Displays BRIGHTNESS value
R HUE	> HUE 0~100	Displays HUE value
R SATURATION	> SATURATION 0~100	Displays SATURATION value
R SHARPNESS	> SHARPNESS 0~100	Displays SHARPNESS value
R NR	> NR OFF~HIGH	Displays NR status
R PCHPOSITION	> PCHPOSITION 0~100	Displays PC H-POSITION value
R PCVPOSITION	> PCVPOSITION 0~100	Displays PC V-POSITION value
R PCCLOCK	> PCCLOCK 0~100	Displays PC CLOCK value
R PCPHASE	> PCPHASE 0~63	Displays PC PHASE value
R COLORTEMP	> COLORTEMP NORMAL~USER	Displays COLOR TEMP mode
R RED	> RED 0~100	Displays COLOR RED value
R GREEN	> GREEN 0~100	Displays COLOR GREEN value
R BLUE	> BLUE 0~100	Displays COLOR BLUE value
R OSDHPOSITION	> OSDHPOSITION 0~100	Displays OSD H-POSITION value
R OSDVPOSITION	> OSDVPOSITION 0~100	Displays OSD V-POSITION value
R OSDTIMEOUT	> OSDTIMEOUT 0~100	Displays OSD TIMEOUT value
R OSDBACKGROUND	> OSDBACKGROUND 0~8	Displays OSD BACKGROUND status
R AUDIOMUTE	> AUDIOMUTE OFF~ON	Displays AUDIO MUTE status
R AUDIODELAY	> AUDIODELAY OFF~150ms	Displays AUDIO DELAY status

Key Commands

Command	Feedback	Description
K POWER	>POWER	Panel/remote control key POWER
K CV	> CV	Panel key CV
K SV	> SV	Panel key SV
K COMP	> COMP	Panel key COMP
K PC1	> PC1	Panel key PC1
K PC2	> PC2	Panel key PC2
K PC3	> PC3	Panel key PC3
K HDMI1	> HDMI1	Panel key HDMI1
K HDMI2	> HDMI2	Panel key HDMI2
K HDMI3	> HDMI3	Panel key HDMI3
K HDMI4	> HDMI4	Panel key HDMI4
K MENU	> MENU	Panel key MENU
K DEC	> DEC	Panel key DEC
K INC	> INC	Panel key INC
K ENTER	> ENTER	Panel key ENTER
K SOURCE	> SOURCE	Remote control key SOURCE
K VGA	> VGA	Remote control key VGA
K SVGA	> SVGA	Remote control key SVGA
K XGA	> XGA	Remote control key XGA
K SXGA	> SXGA	Remote control key SXGA
K UXGA	> UXGA	Remote control key UXGA
K 1080i60	> 1080i60	Remote control key 1080i60
K 480p	> 480p	Remote control key 480p
K 720P60	> 720p60	Remote control key 720p
K 1080P60	> 1080p60	Remote control key 1080p60
K UP	> UP	Remote control key UP
K DOWN	> DOWN	Remote control key DOWN
K LEFT	> LEFT	Remote control key LEFT
K RIGHT	> RIGHT	Remote control key RIGHT
K EXIT	> EXIT	Remote control key EXIT
K AUTO	> AUTO	Remote control key AUTO
K RESET	> RESET	Remote control key RESET

Safety Information

Safeguards

To reduce the risk of electric shock, do not expose this product to rain or moisture

Do not modify the wall plug. Doing so will void the warranty and safety features.

If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.

This equipment should be installed near the socket outlet and the device should be easily accessible in the case it requires disconnection.

Precautions

FCC regulations state that any unauthorized changes or modifications to this equipment, not expressly approved by the manufacturer, could void the user's authority to operate this equipment.

Operate this product using only the included external power supply. Use of other power supplies could impair performance, damage the product, or cause fires.

In the event of an electrostatic discharge this device may automatically turn off. If this occurs, unplug the device and plug it back in.

Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful of plug-ins or cord exit points from this product.

Avoid excessive humidity, sudden temperature changes or temperature extremes.

Keep this product away from wet locations such as bathtubs, sinks, laundries, wet basements, fish tanks, and swimming pools.

Use only accessories recommended by Atlona to avoid fire, shock, or other hazards.

Unplug the product before cleaning. Use a damp cloth for cleaning and not cleaning fluid or aerosols. Such products could enter the unit and cause damage, fire, or electric shock. Some substances may also mar the finish of the product.

Never open, remove unit panels, or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your AT-LINE-PRO4. Opening the product will void the warranty.

Do not attempt to service the unit. Disconnect the product and contact your authorized Atlona reseller or contact Atlona directly.

Warranty

Limited Warranty

Atlona Technologies warrants that (a) its products (AT-LINE-PRO4) will perform substantially in accordance with the accompanying written materials for a period of 3 years from the date of receipt and (b) that the product will be free from defects in materials and workmanship under normal use and service for a period of 3 years. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 3 years from the date of receipt. Some jurisdictions do not allow such limitations on duration of an implied warranty, so the above limitation may not apply to customers that fall within those areas.

Customer Remedies

Atlona Technologies' and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' decision, either return of the price paid for the product, repair, or replacement of the product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of the Customer's receipt. This Limited Warranty is void if failure of the product has resulted from accident, abuse, misapplication, or natural occurrence. In example but not limited to: power surges (electrical storms, local power outage), dropping the product (or items on the product), contact with fluids, and physical misconduct (i.e. kicking or punching). Any replacement product will be warranted for the remainder of the original warranty period.

No other warranties

To the maximum extent permitted by applicable law, Atlona Technologies and its suppliers disclaim all other warranties, either expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with regard to the product and any related written materials. This Limited Warranty gives customer specific legal rights. Customers may have other rights depending on the jurisdiction.

No liability for damages

To the maximum extent permitted by applicable law, in no event shall Atlona Technologies or its suppliers be liable for any damages arising out of the use of or inability to use this product, even if Atlona Technologies has been advised of the possibility of such damages. Such damages include but are not limited to: special, incidental, consequential, or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or any other pecuniary loss. Atlona Technologies' and its suppliers' entire liability under any provision of this agreement shall be limited to the amount actually paid by you for the product. Some Jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damage. The above limitations may not apply to you in such jurisdictional cases.

Atlona Product Registration

Thank you for purchasing this Atlona product. - We hope you enjoy it and will take an extra few moments to register your new purchase.

Registration creates an ownership record if your product is lost or stolen and helps ensure you'll receive notification of performance issues and firmware updates.

At Atlona, we respect and protect your privacy, assuring you that your registration information is completely secure. Atlona product registration is completely voluntary and failure to register will not diminish your limited warranty rights.

To register go to: http://www.atlona.com/registration